THE PREVALENCE OF VIOLENCE AMONG FEMALE HEALTH WORKER OF JEDDAH'S GENERAL MINISTRY OF HEALTH HOSPITAL

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Master's Dissertation to obtain the Master's Degree in Primary Care Mental Health

NOVA Medical School | Faculdade de CiênciasMédicas

November 2020

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DEDICATION

I would like to dedicate this piece of work to all women who were abused by their partner. It is also dedicated to my parents, my children and husband for their motivation, encouragement, love and support.

ACKNOWLEDGEMENTS

I am extremely grateful to ALLAH almighty the most merciful, the most gracious for giving me the strength to complete this study successfully. Thanks to my supervisor Professor Ben Wright and Professor Miguel Xavier for their valuable advice and guidance throughout the research. I especially thank my parents, husband and my children for their support and help.

ABSTRACT

This is a community-based cross-sectional study where the prevalence of domestic violence and its associated factors were determined.

The aim of the study was to determine prevalence and epidemiology of domestic violence among female health worker of General Ministry of Health (MOH) Hospital in Jeddah, Kingdom of Saudi Arabia.

A self-administered questionnaire was the tool of the study. Simple random sampling technique was used to select female health workers. All female health workers including physicians, nurses, pharmacists, physiotherapists and lab technicians from general MOH hospitals participated in the study.

The prevalence of violence was 45.3 % among female health workers of general MOH hospitals.

The Saudi nationality, divorce, higher monthly income, supporting their families financially, sharing children expenditure with their partners and using polygamy were found to be associated with domestic violence.

The study concluded that domestic violence was found to be high in the study population and was associated with several factors.

Key word:Domestic Violence ,Female Health worker ,Epidemology,polygamy

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FHW	Female Health Workers
PHCC	Primary Health Care Center
MOH	Ministry of Health
UN	United Nations
UNDF	United Nations Development Fund
WHO	World Health Organization
IPV	Inter Personal Violence

CHAPTER 1
INTRODUCTION

1. BACKGROUND

Violence has long been considered a criminal justice issue and a human rights issue. More recently it also has been considered a health issue. In many countries, violence between young people or the abuse of women, children or the elderly seriously hampers economic and social development (1).

Every day, more than 4000 people, over 90% of them in low and middle income countries, die because of violence. This is roughly the same as the daily toll death due to tuberculosis and more than the daily toll (3500 deaths) due to malaria. Of those killed by violence, approximately 2300 die by their own hand, over 1500 because of injuries inflicted by another person, and over 400 as a direct result of war or some other form of collective violence (1).

Each year, over 1.6 million people worldwide lose their lives to violence. Violence is among the leading causes of death for people aged 15-44 years worldwide. For every person who dies as a result of violence, many more are injured and suffer from a range of physical, sexual, reproductive and mental health problems (2).

Violence against women is present in every country, cutting across boundaries of culture, class, education, income, ethnicity and age . When the violation takes place within the home, as is very often the case, the abuse is effectively condoned by the tacit silence and the passivity displayed by the state and the law-enforcing machinery. The global dimensions of this violence are alarming, as highlighted by studies on its

incidence and prevalence. UILNo society can claim to be free of such violence, the only variation is in the patterns and trends that exist in countries and regions (3).

Women are much more likely than men to be victimized by a current or former intimate partner. In 2008 the Centers for Disease Control and Prevention published data collected in 2005 and reported that women experience two million injuries from intimate partner violence each year (4).

The United Nations Development Fund (UNDF) for Women estimates that at least one in three women globally will be beaten, raped or otherwise abused during her lifetime. In most cases, the abuser is a member of her own family (5).

On average more than three women a day are murdered by their husbands or boyfriends in the United States. In 2005, 1,181 women were murdered by an intimate partner (6).

A 2005 World Health Organization (WHO) study found that of 15 sites in ten countries – representing diverse cultural settings – the proportion of ever-partnered women who had experienced physical or sexual intimate partner violence in their lifetimes ranged from 15 percent in Japan to 71 percent in Ethiopia (7).

The United Nations (UN) defines violence against women as any act of gender-based violence that results in, or is likely to result in physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life (2).

Health consequences can result directly from violent acts or from the long-term effects of violence.

Injuries: Physical and sexual abuse by a partner are closely associated with injuries. Violence by an intimate partner is the leading cause of non-fatal injuries to women in the USA.

Deaths from violence against women include honor killings (by families for cultural reasons); suicide; female infanticide (murder of infant girls); and maternal death from unsafe abortion.

Sexual and reproductive health: Violence against women is associated with sexually transmitted infections such as HIV unintended pregnancies, gynecological problems, induced abortions, and adverse pregnancy outcomes, including miscarriage, low birth weight and fetal death.

Risky behaviors: Sexual abuse as a child is associated with higher rates of sexual risk-taking (such as first sex at an early age, multiple partners and unprotected sex), substance use, and additional victimization. Each of these behaviors increases risks of health problems.

Mental health: Violence and abuse increase risk of depression, post-traumatic stress disorder, sleep difficulties, eating disorders and emotional distress.

Physical health: Abuse can result in many health problems, including headaches, back pain, abdominal pain, fibromyalgia, gastrointestinal disorders, limited mobility, and poor overall health.

The social and economic costs of violence against women are enormous and have ripple effects throughout society. Women may suffer isolation, inability to work, loss of wages, lack of participation in regular activities, and limited ability to care for themselves and their children (2).

1.2. RATIONALE

The researcher had worked in primary health care center in Jeddah for many years and completed hospital rotations in the program of family medicine. During this observed the wide spread impact of all of all types of intimate partner abuse on the physical, psychological and economic wellbeing of female health workers (FHW) from nurses to consultants who had highly responsible positions. I observed a strong tendency of silence and shame in admitting the problem. Therefore I decided to bring light to problem by studying abuse in this group of women.

In addition there is no previous research on the prevalence of domestic violence among female health workers.

1.3. AIM

To evaluate domestic violence among female health workers in Jeddah's general MO H hospitals

1.4. OBJECTIVES

1. To estimate the prevalence of domestic violence among female health worker in Jeddah's general MOH hospitals during May 2018.
2. To identify risk factors associated with domestic violence among female health worker in Jeddah's general MOH hospitals.

CHAPTER 2
LITERATURE REVIEW

2.1. INTRODUCTION

The family is often equated with sanctuary a place where individuals seek love, safety security, and shelter. But evidence shows that it is also a place that can imperil lives, and breed some of the most drastic forms of violence perpetrated against women and girls. Violence in the domestic sphere is usually perpetrated by males who are, or who have been, in positions of trust intimacy and power – husbands, fathers, fathers-in-law, stepfathers, brothers, uncles, sons and other relatives. Domestic violence is in most cases violence perpetrated by men against women. The Secretary-General noted that domestic violence alone is on the increase (3).

2.2. Operation Definition

There is no universally accepted definition of violence against women. Some human rights activists prefer a broad-based definition that includes "structural violence" such as poverty, and unequal access to health and education. Others have argued for a more limited definition in order not to lose the actual descriptive power of the term. In any case, the need to develop specific operational definitions has been acknowledged so that research and monitoring can become more specific and have greater cross-cultural applicability.

Domestic violence includes violence perpetrated by intimate partner, family members, and manifested through:

“Physical abuse”; such as slapping, beating, arm twisting, stabbing, strangling, burning, choking, kicking, threats with an object or weapon, and murder.

"Sexual abuse";such as coerced sex through threats, intimidation or physical force, forcing unwanted sexual acts or forcing sex with others.

"Psychological abuse"; which includes behavior that is intended to intimidate and persecute, and takes the form of threats of abandonment or abuse, confinement to the home, surveillance, threats to take away custody of the children, destruction of objects, isolation, verbal aggression and constant humiliation.

"Economic abuse"; includes acts such as the denial of funds, refusal to contribute financially, denial of food and basic needs, and controlling access to health care, employment (3).

2.3. Prevalence of violence against women:

Abuse against women is a social phenomenon with significant consequences for the victims and one that raises broader psychological, medical, legal, economic and sociological issues. It is women who are mostly the victims of public and domestic violence in all countries of the world and according to international literature the phenomenon of violence against women is increasing (8).

2.3.1 International View

Approximately 1 out of 5 women worldwide have been victims of beating by their intimate partners and 1 out of 3 will be victims to some form of violence in their life time. Violence does not know any bounds, but we should know that it is the weak who suffer (8).

2.3.1.1. Greater Boston USA 2006

This cross-sectional survey carried out in July 2006 with a community-based sample of women in relationships with males (n = 208) assessed demographics, (IPV) history, and health. Twenty-one percent of the quantitative sample reported (IPV) in the current relationship.

Qualitative subjects described how victimization resulted in injury and chronic health concerns and how (IPV) induced depression anxiety affected their sleep, appetite, energy, and wellbeing. Experiences of IPV are related to increased poor health among South Asian women (9).

In this study the sample size was small did not specify the age range or the data collection tool used by the interviewer.

2.3.1.2.Samelelius L, Wijma B, Wingren G ,Wijma K in Sweden 2010 (10).

A cross-sectional and population-based survey using the Abuse Screening Inventory (ASI) measuring experiences of physical, sexual and psychological abuse and including questions on health and social situation, was sent by postal or mail to 6000 women, randomly selected from the population register. The questionnaire was completed and returned by 4150 (70%) of 5,896 eligible women. Results: 27.5% of the women reported abuse of any kind. Of those, 69.5% reported current suffering from abuse. Abused suffering women reported more anxiety, depression and sleep disturbances, and a less advantageous social situation than both non-abused and abused non-suffering women (10).

The sample size was large The age group was not specified the data collection tool was the abuse screening inventory (ASI) this was sent by email and randomly selected from population.

2.3.1.3. Boston University School of Public Health, USA 2002 (11).

A community-based, a cross-sectional study among South Asian women (n=160) in relationships with male partners. Participants were recruited via community outreach (e.g. fliers, snowball sampling, referrals) and were interviewed in person by trained South Asian women. Participants were 18 to 62 years old (mean age 31.6) and predominantly

immigrant (87.5%); 74.4% were married, 51.6% had children, and 71.9% had family incomes of more than $2100 per month. Forty percent of the sample reported physical IPV, sexual IPV, or injury and need for medical services due to IPV from current male partners. Twice as many participants reported needing to see a doctor for abuse-related injuries, but not seeing one (6.3%), as actually seeing a doctor (3.1%). Only 11.3% of women reporting IPV indicated having received any counseling related to the abuse. Other variables assessed were not related to abuse in current relationships (11).

In this study the age group was wide, the sample size was small and they surveyed only women currently involved with male partners. The study conduct to women need seeing by counseling that lead to decreased number women reporting violence.

2.3.1.4. Jeyaseelan L, Kumar S, Neelakantan N, Peedicayil A, Pillai R, Duvvury N study in India 2007 (12).

Another study in India in 2007, using a cross-sectional household survey was carried out in rural, urban and urban-slum areas across seven sites in India, among women aged 15-49 years, living with a child less than 18 years of age. The sample was selected using the probability proportionate to size method. Trained field workers administered a structured questionnaire to elicit information on spousal physical violence. Of 9938 women surveyed, 26% reported experiencing spousal physical violence during the lifetime of their marriage (12).

The sample size of this study was large, the age group was wide, the data collection tool was interviewer questionnaire filed by trained filed workers. This may have led the women underreporting physical abuse, perhaps because of personal sensitivity to the subject of intimate partner abuse by a face to face interviewer.

2.3.1.5.Babu BV, Kar SK In india, BMC Public Health. 2009 (13).

This population-based study covering both married women (n = 1718) and men (n = 1715) from three of the four states of Eastern India selected through a systematic multistage sampling strategy. The prevalence of physical, psychological, sexual and any form of violence among women of Eastern India were 16%, 52%, 25% and 56% respectively. The rates reported by men were 22%, 59%, 17% and 59.5% respectively. Men reported higher prevalence of all forms of violence apart from sexual violence. Husbands were mostly responsible for violence in majority of cases and some women reported the involvement of husbands' parents (13).

In this study the size was very large, age group was not mentioned. The data collection tool was interviewer questioner; Interviews were conducted using separate pre-piloted structured questionnaires for women (victimization) and men (perpetration).

2.3.1.6.Malcoe LH, Duran BM, Montgomery JM in New Mexico USA 2004 (14).

This study was conducted a cross-sectional study of Native American women to determine prevalence of lifetime and past-year Intimate partner violence (IPV) and partner injury. More than half (58.7%) of participants reported lifetime physical or sexual (IPV); 39.1% experienced severe physical (IPV); 12.2% reported partner-forced sexual activity; and 40.1% reported lifetime partner-perpetrated injuries. A total of 273 women had a spouse or boyfriend during the previous 12 months, all participants were Native. American and 59.0% of partners were non-Native American. Among women with non- Native partners past-year prevalence was 30.1% for physical or sexual IPV ; 15.8% for severe physical IPV;

3.3% for forced partner-perpetrated sexual activity; and 16.4% for intimate partner injury (14|).

The sample size of this study was large, the age group was not specified .

The shady used the modified 18-item Conflict Tactics Scales any women who reported having physical and sexual violence.

2.3.2. Regional studies

Data on the occurrence of violence against women are scarce in the Arab world. The few studies that have been conducted show that wife abuse is a significant health and social problem in this region. Islam dictates love and mercy between the spouses and protection of women from any physical, psychological or sexual violence at home or outside (15).

2.3.2.1. Ahmed AM, Elmardi AE in Sudan (16).

This study investigated domestic violence in the Sudanese family, authors studied 394 literate, married women attending the Arda Medical Centre, Omdurman, from October 2001 to February 2002. Through self-administered questionnaires, the women provided data on sociodemographic characteristics and abuse by the husband. Abuse was reported by 164 women (41.6%), who suffered 525 violent episodes in the previous year, classified into controlling behavior (194), threatening behavior (169) and physical violence (162). Frequency of violent episodes varied from 1 (25%) to 6 (20.7%). Violence during pregnancy was reported by 27 women (16.5%). Events preceding the abuse included suspicion of illicit relations, victims "talking back" and allegation of inadequate home care. Common reactions reported by the women included staying quiet, crying and resistance (16).

2.3.2.2.Mohannad Al-Nsourn Marwan k and Ghadah Al-Kayyali in Intimate partner violence - Domestic violence - Attitudes - Women′s health - Jordan 2009 (17).

A cross-sectional study among ever-married women aged 18–49 who visited the public health clinics in the governorate of Balka, Jordan, was carried out in August 2006, a total of 356 women were successfully interviewed. Descriptive statistics and adjusted odds ratios from logistic regression were used to assess associations between attitudes towards IPV and selected background variables. The vast majority (87%) of women reported different types of IPV against them in the last 12 months. The most common types of reported violence were emotional abuse (47.5%), followed by wife beating (19.6%). Almost one-third of women justified wife beating by husbands. Older age, younger age at marriage, rural residence, and non-working status were significantly associated with supportive attitudes towards wife beating. The study shows a high prevalence of IPV against women during the past year, and a high rate of justifications for wife beating. Increasing women′s empowerment, particularly economic security through work outside the home, may protect women from violent behavior in this context (17).

The range of age group was wide, the sample size was large. The data collection tool was interviewe.

2.3.2.3.Salari Z, Nakhaee N in Kerman hospitals, Iran Republic. Asia 2008 (18).

This was a cross-sectional study done from March through July 2005 in the four main hospitals of Kerman, Iran, which has maternity units. In total, 416 out of 460 women who were asked to participate agreed to be

interviewed, a 90.4% response rate. All respondents were interviewed privately during the first 48 hours after delivery. The mean age (+/- SD) was 28.0 (+/- 5.6), and all were married. Most of the women were urban residents (89.2%), and the majority of them were multiparous 78.8%. Nearly 16% of mothers said the pregnancies were unintended. In total, 35% (95% confidence interval: 30%-40%) of women had experienced 1 or more episodes of emotional violence during the pregnancy inflicted by their husbands, and 106 women (25%; 95% confidence interval: 21%-30%) had experienced at least 1 episode of physical violence. The highest odds of domestic violence during pregnancy was associated with unintended pregnancies (odds ratio: 7.66; 95% confidence interval: 3.45-16.99) and multiparous pregnancies (odds ratio: 6.88; 95% confidence interval: 3.46-13.68) (18).

In this study the sample size was large, the age of group was narrow and the study conducted in maternity hospitals. Although study done only on pregnant and postpartum subjects this lead to rate was low and women who were not pregnant were not questioned about their experience of abuse.

Acommunity-based study conducted in Egypt in 1996 on a predominantly Muslim population reported that 16% of ever-married or partnered women had been exposed to physical abuse in the past year and 34% had experienced abuse at some time in their life (15).

2.3.3. Local studies Saudi Arabia

There is little information about the incidence, prevalence and pattern of domestic violence against women in Saudi Arabia.

One of the study was done in Joint Program of Family and Community Medicine Jeddah, Saudi Arabia at 2002 by Dr. Hanan Alrehele. The study was a community-based cross-sectional, the prevalence of physical wives abuse was 21.6 % (19).

Another study was done in Medina at 2004 by Dr. A. Tashkande, this was cross-sectional study to measure the prevalence, severity and type of wife abuse experienced by ever-married women attending primary health centers in Medina, Saudi Arabia. Women were interviewed in private at health centers using a questionnaire. Of 689 eligible women, 25.7% reported physical abuse and 32.8% emotional abuse without physical violence. Of those physically abused, 36.7% suffered minor and 63.3% severe incidents. The lifetime prevalence of abuse among the women was 57.7%. Only 36.7% of 109 abused women had informed and discussed the issue with their primary care physician (15).

Another study was done by Al Zahrani T, in Taif city, was a cross sectional study conducted among 256 women attending primary care centers at Taif from November to December 2006. The data collection tool was a self-administered questionnaire using HITS questionnaire. They found the prevalence of DV was 32.4%, most abused women told one member of family about their exposure to DV .The most important reason for DV was perceived by women was a lack of loving feelings between spouses (20).

CHAPTER 3
METHODOLOGY

3.1. Study Area

Saudi Arabia contains the world's largest continuous sand desert, the Rub Al-Khali, or Empty Quarter. Its oil region lies primarily in the eastern province along the Persian Gulf.

This study was conducted at the general ministry of health (MOH) hospitals in Jeddah city.

Jeddah, located on the coast of the Red Sea, Jeddah is the second largest city in Saudi Arabia. Jeddah is considered as the commercial capita of Saudi Arabia. Jeddah tops the list of wealthy cities not only in Saudi Arabia but in the entire Middle East and western Asia. Jeddah serves as the principle gateway to Mecca, the holiest city of the Muslims. To keep the denizens of the city and travelers, who come from all over the world in good health, Jeddah Health and Hospital are equipped to provide with state of the art medical equipment. Medicine and Health Care in Jeddah includes both traditional and modern methods. Traditional treatments are still prevalent.

Physical ailments are treated by using herbs and other plants. In case of an external ailment, the specific body parts are sometimes burned by a hot iron. Several mental hospitals, often address mental health problems by a special reading of the Koran. Though medieval means of treatment are still prevalent, there are also hospitals that are completely modern and equipped with the latest of amenities. Renowned Saudi Arabia doctors practice in these hospitals. Jeddah Health and Hospitals include several private and public hospitals. There are many good hospitals throughout the country. State-of-the-art medical technologies exist in major cities. All the big Jeddah Health and Hospitals are well maintained to a five-star hotel

standard. So accommodating both medieval and traditional modes of treatment, Jeddah Health and Hospitals ofer comprehensive medical care (21).

3.2. Study Description

3.2.1. Study Design

This is a community based study; where the prevalence of female health worker abused was determined by a cross-section study of female health workers in Jeddah general MOH hospital.

3.2.2. Study Population

All Female health employment in general MOH hospitals in Jeddah, Saudi Arabia in 2018.

3.2.3. Inclusion and Exclusion Criteria

Inclusion Criteria:

- All female health worker including physicians, nurses, pharmacists, physiotherapists, lab technicians.
- All Saudi and non-Saudi female health workers .

Exclusion Criteria:

- FHW in other than general MOH hospital.
- FHW in primary health care.

3.2.4. Variables

- The dependent variable is domestic violence.
- Independent variables are age, education level, nationality, marital status, duration of marriage, number of children, occupation, duration of work and monthly income.

3.2.5. Sampling

3.2.5.1. Sample size

Sample size was calculated by using the EPI info program with the following variables. Population size = 1390, the expected frequency worst acceptable + 0.04%, confidence level of 95% and power of 80% the total sample size of 282 which was approximated to 300.

3.2.5.2. Sampling technique

Proportionate sampling technique was used to assign the number of participants who should be recruited from each hospitals, the allocation is based on the following equation $s_i = S*n_i/N$

Where s_i stands for the number of participants from hospital "I"; S for the total sample size; n_i the number of female health worker in hospital (I); and N the total number of female health workers in the three hospitals.

Accordingly, the proportionate samples were:

Hospital	Number of female health workers	Allocated sample
King Fahd Hospital	981	212
King Abdul-Aziz Hospital	185	40
Al-thaghar Hospital	224	48
Total	**1390**	**300**

- Systematic random sampling followed to assign sampled individuals from each hospital, where every fifth worker in the female employees' list was considered eligible for recruitment. The first number of the queue will be selected by wide random numbers from 0 to 9.

3.3. METHOD OF DATA COLLECTION

3.3.1. Data collection tools and techniques

A questionnaire was the main tool in this study. The questionnaire was self-administrated and constructed to obtain information from female health workers in MOH hospitals. The researcher addrened confidentiality by not writing the names of FHW on the questionnaire and each questionnaire was inserted into an envelope and sealed.

The researcher was used domestic violence questionnaire collected by means of the WHO standardized questionnaire (22).

This questionnaire was initially developed by the WHO, reviewed and revised by country research team members, pre-tested in five countries, and piloted in all countries.

Development of the questionnaire

The questionnaire selected was the outcome of a long process of discussion and consultation by WHO. Following an extensive review of a range of pre-existing study instruments, and consultation with technical experts in specific areas (including violence against women, reproductive health, mental health, and tobacco use) the WHO core research team developed a first draft of the questionnaire. This was then reviewed by the WHO expert steering committee and experts in relevant fields, and suggestions for revision were incorporated. The revised questionnaire was then reviewed by the country teams during an international meeting. Discussion focused on incorporating country priorities, and achieving a balance between exhaustively exploring

specific issues and compiling less detailed information on a range of issues.

The questionnaire was then translated and pretested in six countries (Bangladesh, Brazil, Namibia, Samoa, Thailand, and the United Republic of Tanzania). The experiences from these pretests were reviewed at the third meeting of the research teams, and used to make further revisions to the questionnaire.

Following a final pretest, the questionnaire selected for this Study was the completed version 9.9 (Annex 4), and was used in Bangladesh, Brazil, Ethiopia, Japan, Namibia, Peru, Samoa, Thailand, and the United Republic of Tanzania. An updated version of the questionnaire (version 10), which incorporates the experience in the first eight countries, was used in Serbia and Montenegro. The questionnaire was translated and independently back-translated and discussed to establish accuracy, cognitive understanding, and cultural acceptability.

The questionnaire included questions relevant for measuring physical, sexual and emotional violence by an intimate partner and socio-demographic characteristics. Labeling of various forms of intimate partner violence, including physical, sexual and emotional violence, in the 12 months prior to the interview.

The questionnaire included the followings:

Personal data age, education level, nationality, marital status, duration of marriage, number of children, occupation, duration of work, monthly income

Partner data: age, education level, nationality, occupation, monthly income, smoking and drug abuse history.

Validity and reliability of domestic violence questionnaire, design by WHO and review by expert research teams.

3.3.2. Data entry and analysis:

All data entered in a PC using SPSS program version 16 after coding all variables. AP-value of <0.05 was used for significance, and appropriate statistical test carried out.

3.4. Pilot study:

A pilot study using the questionnaire on a sample of female health worker in maternity and child hospital is not included in this report.

The methodology and the questionnaire were tested is necessary changes were made:

-Allow 2 hours for a questionnaire.

-Remove question on smoking and substance misuse for FHW.

-The researchers to address confidentiality by not writing the names of FHW on the questionnaire and each questionnaire was inserted into an envelope and sealed.

3.5. Ethical considerations:

The following step was done to fulfill the ethical requirement. First A permission letter from the Ethics Research Committee of NMS | FCM (CEFCM) to conduct the study. After that permission from hospitals to conduct the study there. Then verbal consent was obtained from each subject participating in the study and not written consent because there was concern that the signature could be used to identify participants and sufficient consent was indicated by completing the questionnaire. Finally, Confidentiality of the information about the participants was guaranteed and that the information used for research purposes.

Chapter 4

RESULTS AND DISCUSSION

In this chapter, results will be presented along with the discussion and in the same order as the objectives.

4.1. RESPONSE RATE

The investigator received 300 responses to 300 questionnaires, giving a response rate of 100%. The high response rate was mainly due to the approach used by the investigator where she handed the questionnaire to each female health worker herself and took it by the end of the day. Another factor behind this was the study population being captive. The questionnaire used in this study was self-administered.

4.1.1. Characteristics of the study group:-

Table1:- Demographic characteristics of the study group (n=300).

Demographic characteristics	No.	%
Age		
<30 years	140	46.7
30-<40 years	118	39.3
40+	42	14.0
Range	20-56 years	
mean ± SD	31.25 ± 7.38 years	
Nationality		
Saudi	220	73.3
Non Saudi	80	26.7
Marital status		
Single	125	41.7
Married	157	52.3
Divorced	16	5.3
Widowed	2	0.7
Occupation		
Physician	70	23.3
Nurse	141	47.0
Technician	47	15.7
Others	42	14.0
Education level		
Diploma	123	41.0
Bachelor	157	52.3
Master degree	8	2.7
Others	12	4.0
Working duration		
<5 years	150	50.0
5-<10 years	82	27.3
10+ years	68	22.7
Mean ± SD	6.1± 5.4 years	

The table shows that slightly less than one half of the respondents (46.7%) are in the age group <30 years, and the majority are Saudis

(73.3%) and over half of them (52.3%) are married. The physicians constituted almost one quarter (23.3%) and the nurses formed 47% of the participants. The mean working duration was for 6.1±5.4 years.

Table2:- Financial status of the respondents.

Financial situation	**No.**	**%**
Monthly income		
<5000 SR	91	30.3
5000-10000 SR	105	35.0
>10000 SR	104	34.7
Financial support for the family		
Yes	229	78.4
No	63	21.6
Sharing partner in home expenditure		
Yes	146	86.4
No	23	13.6
Sharing partner in children expenditure		
Yes	141	86.0
No	23	14.0
Monthly income of the husband		
<3000 SR	34	20.2
3000-5000 SR	52	31.0
5001-10000 SR	37	22.0
5001-10000 SR	45	26.8

The table shows that the majority of the respondents (78.4%) are providing financial support for their families, and the overwhelming majority of the married respondents are sharing with their partner in the home expenditure (86.4%) and the children expenditure.

Table3:- Characteristics of the current of previous partners.

Demographic characteristics	No.	%
Age		
<30 years	15	9.0
30-<40 years	91	54.8
40+	60	36.2
Range	25-57 years	
mean ± SD	37.7 ± 6.6 years	
Nationality		
Saudi	96	56.8
Non Saudi	73	43.2
Education level		
Illiterate	5	3.0
Primary	10	6.0
Intermediate	33	19.6
Secondary	44	26.2
University	63	37.5
Postgraduate	13	7.7
Smoking status		
Current smoker	67	39.0
Never smoked	89	51.7
Ex-smoker	16	9.3
Drug abuse		
Current abuser	5	2.9
Never abused	164	95.3
Ex-abuser	3	1.7

The table describes the relevant characteristics of the current or previous partners of the participants. It shows that the great majority of them are in their 4th decade or older (91%) with a mean age of 37.7±6.6 years, and slightly more than one half of them are Saudis (56.8%). Slightly more than one third (37.5%) have university qualifications, in addition to

7.7% who have postgraduate degrees. Also, it was noticed that 39% are current smokers and small number are (2.9%) are drug abusers.

4.2.PREVALENCE OF EXPOSURE TO DOMESTIC VIOLENCE ABUSE

4.2.1.PREVALENCE OF ABUSIVE VIOLENCE FEMALE HEALTH WORKERS:

Of 300 female health workers answered the questionnaire**,** reported that they were exposed to one or more of the situations reflecting different types of abusive violence. It was almost half of them (45.3%) were exposed to one or more of these violent situations. The most frequent abusive violence was emotional violence (39.3%) followed by moderate physical violence (35.7%), and the least frequent was sexual abuse (7.3%).

4.2.2. Exposure to domestic violence abuse

Table 4: Self reported exposure of the participants to domestic violence.

Domestic violence	No.	%
Physical violence by an intimate partner (family member)		
Moderate violence		
Was slapped or had something thrown at her that could hurt her.	96	32.1
Was pushed or shoved	91	30.3
Severe violence		
Was hit with fist or something else that could hurt	36	12.0
Was kicked, dragged, or beaten up	23	7.7
Was choked or burnt on purpose	4	1.3
Perpetrator threatened to use or actually used a gun, knife, or other weapon against her.	--	0.0
Sexual violence		
Was physically forced to have sexual intercourse when she did not want to.	19	6.3
Had sexual intercourse when she did not want to because she was afraid of what partner might do.	13	4.3
Was forced to do something sexual that she found degrading or humiliating.	10	3.3
Emotional abuse by an intimate partner		
Was humiliated in front of other people	114	38.0
Perpetrator had done things to scare or intimidate her on purpose.	79	26.3
Perpetrator had threatened to hurt someone she cared about	25	8.3

Almost one third of the participants are exposed to some sort of moderate domestic violence by intimate partner and or family member, the violence was represented by being slapped or had a harmful object thrown at them pushed (32.1%) or had been pushed or shoved (30.3%). In the same line, but to a lesser extent, 12% reporting being hit by fist, and 7.7% expressed that they had been kicked, dragged or beaten up. Moreover, four participants reported that they had been choked or burnt on purpose.

Meanwhile, it was observed that 6.3% of our participants reported that they were forced to have sexual intercourse against their will, moreover, 4.3% indicated that they did so because they were afraid of the consequences of refusal and 3.3% of them were exposed to degrading or humiliated sexual acts.

Regarding the emotional abuse by intimate partner, it was found that more than one third of the females (38%) were humiliated in front of other people, and 26.3% were exposed purposively to scare or intimidation.

Summary for exposure to abusive violence situations.

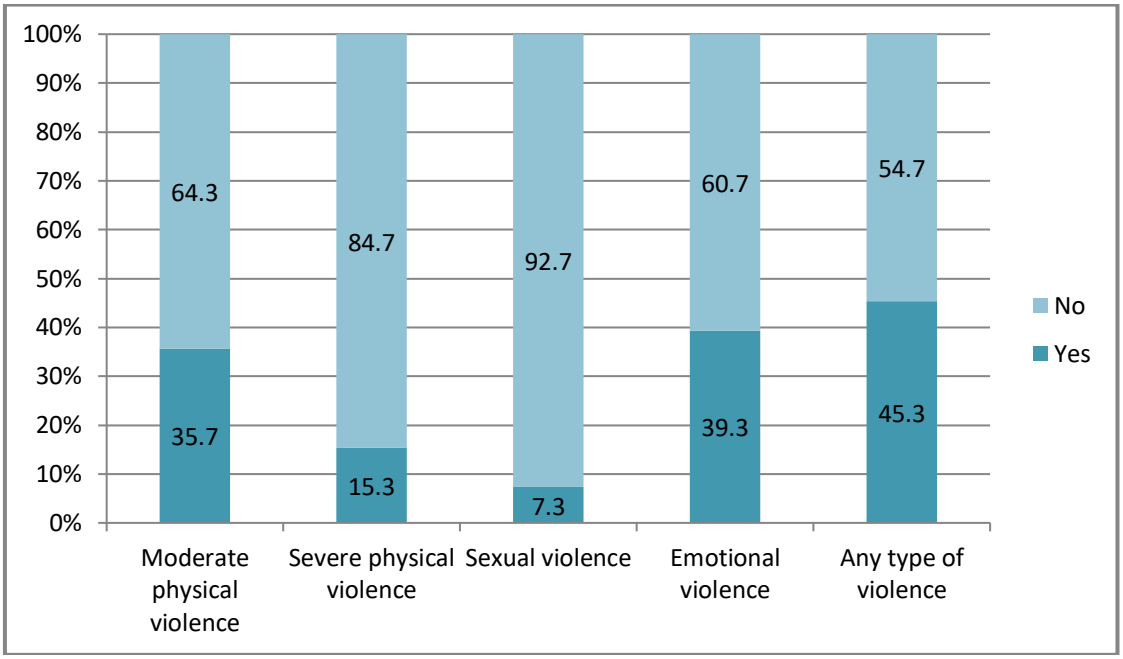


Figure 1 Exposure to one or more of the abusive violence situations.

The figure illustrates the percentages of participants who reported that they were exposed to one or more of the situations reflecting different types of abusive violence. It was remarked that almost half of them (45.3%) were exposed to one or more of these violent situations. The most frequent abusive violence is the emotional violence (39.3%) followed by moderate physical violence (35.7%), and the least is sexual abuse (7.3%). In the literature prevalence of abuse was variable, ranging from 27.5% in Sweden (10) to 40% in USA (11) and 58.7% in New Mexico (14). This variability was mainly due to lack of unified standard for the measurement of domestic violence, different sample size and different definitions used in these studies.

Table 5:- Exposure of the participants to moderate physical violence according to their demographic characteristics.

Demographic characteristics of the participants	Exposure to moderate physical violence				X^2	p
	Yes		No			
	Freq.	%	Freq.	%		
Nationality						
Saudi	90	40.9%	130	59.1%	9.981	0.002
Non Saudi	17	21.3%	63	78.8%		
Age categories						
<30 years	51	36.4%	89	63.6%		
30-<40 years	40	33.9%	78	66.1%	0.304	0.859
40+ years	16	38.1%	26	61.9%		
Marital status						
Single	46	36.8%	79	63.2%		
Married	52	33.1%	105	66.9%	3.450	0.178
Divorced	9	56.3%	7	43.8%		
Occupation						
Physician	24	34.3%	46	65.7%		
Nurse	46	32.6%	95	67.4%	2.399	0.494
Technician	21	44.7%	26	55.3%		
Others	16	38.1%	26	61.9%		
Education level						
Diploma	45	36.6%	78	63.4%		
Bachelor	56	35.7%	101	64.3%	NA	NA
Master degree	4	50.0%	4	50.0%		
Others	2	16.7%	10	83.3%		

* *NA Not applicable*

The table describes the self-reported exposure of the participants to one or more of the moderate physical violence situations. It is evident that the only factor which shows statistically significant difference is the nationality ($p<0.05$), where it was found that Saudis are more frequently exposed to moderate physical violence (40.9%) if compared to the non-Saudis (21.3%). Otherwise, there are no statistically significant differences among the respondents according to the other displayed demographic characteristics.

Table 6 Exposure of the participants to moderate physical violence according to their financial status.

Financial status of the participants	Exposure to moderate physical violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Monthly income						
<5000 SR	15	16.7%	75	83.3%	27.508	<0.001
5000-10000 SR	55	52.9%	49	47.1%		
>10000 SR	37	35.6%	67	64.4%		
Financial support for the family						
Yes	92	40.5%	135	59.5%	8.450	0.004
No	13	20.6%	50	79.4%		
Sharing house expenditure with partner						
Yes	53	36.6%	92	63.4%	0.954	0.329
No	6	26.1%	17	73.9%		
Sharing children expenditure with partner						
Yes	53	37.6%	88	62.4%	7.406	0.007
No	2	8.7%	21	91.3%		
Monthly income of the partner						
<3000 SR	5	14.7%	29	85.3%	12.009	0.007
3000-5000 SR	16	31.4%	35	68.6%		
5001-10000 SR	17	45.9%	20	54.1%		
>10000 SR	22	48.9%	23	51.1%		

The table shows that the most frequently exposed to moderate physical abuse are those who have higher monthly income, who are supporting their families financially, sharing their partners in the children expenditure an whom their partners having higher monthly income, and these observations are statistically significant $p<0.05$. However, there is no

statistically significant differences between those who are sharing their partners in the house expenditure and those who are not p>0.05.

Table 7 Exposure of the participants to moderate physical violence according to characteristics of the partners.

Characteristics of the partners	Exposure to moderate physical violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	40	41.7%	56	58.3%	4.463	0.035
Non Saudi	19	26.0%	54	74.0%		
Age						
<30 years	6	40.0%	9	60.0%	0.279	0.870
30-<40 years	33	36.3%	58	63.7%		
40+ years	20	33.3%	40	66.7%		
Presence of other wife						
Yes	14	70.0%	6	30.0%	12.629	<0.001
No	45	29.8%	106	70.2%		
Smoking status						
Current smoker	35	52.2%	32	47.8%	14.565	0.001
Never smoked	21	23.6%	68	76.4%		
Ex-smoker	4	25.0%	12	75.0%		
Drug abuse						
Current abuser	1	20.0%	4	80.0%	NA	NA
Never abuse	56	34.1%	108	65.9%		
Ex-abuser	3	100.0%	0	.0%		

* *NA Not applicable*

The table illustrates that the frequency of exposure to moderate violence was significantly (p<0.05) higher among participants whom

current or previous partners are Saudis (41.7%), have other wives (70%) and current smokers (52.2%).

On the other hand the statistical analysis showed that neither the educational level nor occupation of the partners has significant impact on the frequency of perpetration of moderate violence.

Table 8 Exposure of the participants to severe physical violence according to their demographic characteristics.

Demographic characteristics of the participants	Exposure to severe physical violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	42	19.1%	178	80.9%	8.973	0.003
Non Saudi	4	5.0%	76	95.0%		
Age categories						
<30 years	19	13.6%	121	86.4%	2.737	0.254
30-<40 years	17	14.4%	101	85.6%		
40+ years	10	23.8%	32	76.2%		
Marital status						
Single	19	15.2%	106	84.8%	10.707	0.005
Married	20	12.7%	137	87.3%		
Divorced	7	43.8%	9	56.3%		
Occupation						
Physician	8	11.4%	62	88.6%	2.691	0.442
Nurse	20	14.2%	121	85.8%		
Technician	10	21.3%	37	78.7%		
Others	8	19.0%	34	81.0%		
Education level						
Diploma	18	14.6%	105	85.4%	NA	NA
Bachelor	26	16.6%	131	83.4%		
Master degree	0	.0%	8	100.0%		
Others	2	16.7%	10	83.3%		

* *NA Not applicable*

The table shows that the percentage of respondents who reported that they had been exposed to severe forms of violence was significantly

higher among Saudis (19.1%) and divorced (43.8%) females if compared to their counterparts $p<0.05$.

Table 9 Exposure of the participants to severe physical violence according to their financial status.

Financial status of the participants	**Exposure to severe physical violence**					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Monthly income						
<5000 SR	4	4.4%	87	95.6%	13.277	0.001
5000-10000 SR	24	22.9%	81	77.1%		
>10000 SR	18	17.3%	86	82.7%		
Financial support for the family						
Yes	38	16.6%	191	83.4%	1.193	0.286
No	7	11.1%	56	88.9%		
Sharing partner in house expenditure						
Yes	23	15.8%	123	84.2%	Fisher	0.512
No	3	13.0%	20	87.0%		
Sharing partner in children expenditure						
Yes	23	16.3%	118	83.7%	Fisher	0.111
No	1	4.3%	22	95.7%		
Monthly income of the partner						
<3000 SR	2	5.9%	32	94.1%	4.601	0.203
3000-5000 SR	8	15.4%	44	84.6%		
5001-10000 SR	9	24.3%	28	75.7%		
>10000 SR	8	17.8%	37	82.2%		

Regarding self-reported exposure of our participants to severe physical violence according to their financial status, it was found that

having higher monthly income is the only characteristic which increase significantly the likelihood of exposure to severe violence $p<0.05$.

Table 10 Exposure of the participants to severe physical violence according to characteristics of the partners:

Characteristics of the partners	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	21	21.9%	75	78.1%	7.192	0.007
Non Saudi	5	6.8%	68	93.2%		
Age						
<30 years	1	6.7%	14	93.3%	1.248	0.536
30-<40 years	14	15.4%	77	84.6%		
40+ years	11	18.3%	49	81.7%		
Presence of other wife						
Yes	9	45.0%	11	55.0%	Fisher	0.001
No	17	11.3%	134	88.7%		
Smoking status						
Current smoker	20	29.9%	47	70.1%	16.615	<0.001
Never smoked	6	6.7%	83	93.3%		
Ex-smoker	1	6.3%	15	93.8%		
Drug abuse						
Current abuser	0	.0%	5	100.0%	NA	NA
Never abuse	25	15.2%	139	84.8%		
Ex-abuser	2	66.7%	1	33.3%		

* *NA Not applicable*

With respect to the characteristics of the partners, the table demonstrates that being Saudi (21.9%), husband having another wife

(45%) and current smoker (29.9%) are manlier animated with perpetration of ever.

violence against their wives $p<0.05$.

Table11:- Exposure of the participants to sexual violence according to their demographic characteristics.

Demographic characteristics of the participants	Exposure to sexual violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	17	7.7%	203	92.3%	0.188	0.664
Non Saudi	5	6.3%	75	93.8%		
Age categories						
<30 years	7	5.0%	133	95.0%	2.521	0.284
30-<40 years	12	10.2%	106	89.8%		
40+ years	3	7.1%	39	92.9%		
Marital status						
Single	1	.8%	124	99.2%	23.063	<0.001
Married	16	10.2%	141	89.8%		
Divorced	5	31.3%	11	68.8%		
Occupation						
Physician	6	8.6%	64	91.4%	NA	NA
Nurse	8	5.7%	133	94.3%		
Technician	5	10.6%	42	89.4%		
Others	3	7.1%	39	92.9%		
Education level						
Diploma	8	6.5%	115	93.5%	NA	NA
Bachelor	11	7.0%	146	93.0%		
Master degree	2	25.0%	6	75.0%		
Others	1	8.3%	11	91.7%		

**NA Not applicable*

The table shows that the percentage those who reported that they had been exposed to sexual violence was significantly higher among the divorced participants (31.3%) $p<0.05$. Otherwise, no significant difference was observed according to other demographic characteristics.

Table 12 Exposure of the participants to sexual violence according to their financial status.

Financial status of the participants	Exposure to sexual violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Monthly income						
<5000 SR	3	3.3%	88	96.7%	3.805	0.149
5000-10000 SR	8	7.6%	97	92.4%		
>10000 SR	11	10.6%	93	89.4%		
Financial support for the family						
Yes	19	8.3%	210	91.7%	Fisher	0.260
No	3	4.8%	60	95.2%		
Sharing partner in house expenditure						
Yes	20	13.7%	126	86.3%	Fisher	0.181
No	1	4.3%	22	95.7%		
Sharing partner in children expenditure						
Yes	18	12.8%	123	87.2%	Fisher	0.580
No	2	8.7%	21	91.3%		
Monthly income of the partner						
<3000 SR	3	8.8%	31	91.2%	NA	NA
3000-5000 SR	4	7.7%	48	92.3%		
5001-10000 SR	5	13.5%	32	86.5%		
>10000 SR	8	17.8%	37	82.2%		

* *NA Not applicable*

The table shows that there are no significant differences in the frequency of reported exposure to sexual violence among the participants according to their financial status $p>0.05$.

Table 13 Exposure of the participants to sexual violence according to characteristics of the partners.

Characteristics of the partners	Exposure to sexual violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	14	14.6%	82	85.4%	1.610	0.205
Non Saudi	6	8.2%	67	91.8%		
Age						
<30 years	1	6.7%	14	93.3%	1.483	0.476
30-<40 years	14	15.4%	77	84.6%		
40+ years	6	10.0%	54	90.0%		
Presence of other wife						
Yes	5	25.0%	15	75.0%	Fisher	0.077
No	16	10.6%	135	89.4%		
Smoking status						
Current smoker	14	20.9%	53	79.1%	8.325	0.016
Never smoked	5	5.6%	84	94.4%		
Ex-smoker	2	12.5%	14	87.5%		
Drug abuse						
Current abuser	2	40.0%	3	60.0%	NA	NA
Never abuse	18	11.0%	146	89.0%		
Ex-abuser	1	33.3%	2	66.7%		

* *NA Not applicable*

The table shows that the percentage of reported sexual violence was significantly higher among participants where their partners are current smokers (20.9%) $p<0.05$. Otherwise, there are no significant differences related to other displayed characteristics of the partners.

Table14:- Exposure of the participants to emotional violence according to their demographic characteristics.

Demographic characteristics of the participants	Exposure to emotional violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	103	46.8%	117	53.2%	19.369	<0.001
Non Saudi	15	18.8%	65	81.3%		
Age categories						
<30 years	55	39.3%	85	60.7%	0.871	0.647
30-<40 years	49	41.5%	69	58.5%		
40+ years	14	33.3%	28	66.7%		
Marital status						
Single	53	42.4%	72	57.6%	7.872	0.020
Married	54	34.4%	103	65.6%		
Divorced	11	68.8%	5	31.3%		
Occupation						
Physician	30	42.9%	40	57.1%	3.195	0.362
Nurse	48	34.0%	93	66.0%		
Technician	21	44.7%	26	55.3%		
Others	19	45.2%	23	54.8%		
Education level						
Diploma	48	39.0%	75	61.0%	NA	NA
Bachelor	62	39.5%	95	60.5%		
Master degree	5	62.5%	3	37.5%		
Others	3	25.0%	9	75.0%		

** NA Not applicable*

The table shows that the percentages of participants who reported exposure to emotional violence were significantly higher among Saudis

(46.8%) and divorced participants (68.8%) p<0.05. However, no statistically significant differences were detected according to other characteristics.

Table15:- Exposure of the participants to emotional violence according to their financial status.

Financial status of the participants	Exposure to emotional violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Monthly income						
<5000 SR	18	20.0%	72	80.0%	21.428	<0.001
5000-10000 SR	53	51.0%	51	49.0%		
>10000 SR	47	45.2%	57	54.8%		
Financial support for the family						
Yes	99	43.6%	128	56.4%	4.635	0.031
No	18	28.6%	45	71.4%		
Sharing partner in house expenditure						
Yes	57	39.3%	88	60.7%	1.481	0.224
No	6	26.1%	17	73.9%		
Sharing partner in children expenditure						
Yes	56	40.0%	84	60.0%	1.622	0.203
No	6	26.1%	17	73.9%		
Monthly income of the partner						
<3000 SR	9	26.5%	25	73.5%	7.020	0.071
3000-5000 SR	16	31.4%	35	68.6%		
5001-10000 SR	17	45.9%	20	54.1%		
>10000 SR	23	51.1%	22	48.9%		

The table shows that exposure to emotional violence was significantly more frequent among participants with higher monthly

income and those who are supporting their families financially (43.6%) p<0.05

Table16- Exposure of the participants to emotional violence according to characteristics of the partners.

Characteristics of the partners	Exposure to emotional violence					
	Yes		No		X^2	P
	Freq.	%	Freq.	%		
Nationality						
Saudi	45	46.9%	51	53.1%	7.660	0.006
Non Saudi	19	26.0%	54	74.0%		
Age						
<30 years	4	26.7%	11	73.3%	0.928	0.629
30-<40 years	35	38.5%	56	61.5%		
40+ years	24	40.0%	36	60.0%		
Presence of other wife						
Yes	14	70.0%	6	30.0%	10.271	0.001
No	50	33.1%	101	66.9%		
Smoking status						
Current smoker	40	59.7%	27	40.3%	22.857	<0.001
Never smoked	20	22.5%	69	77.5%		
Ex-smoker	5	31.3%	11	68.8%		
Drug abuse						
Current abuser	2	40.0%	3	60.0%	NA	NA
Never abuse	61	37.2%	103	62.8%		
Ex-abuser	2	66.7%	1	33.3%		

From the table it can be seen that the percentage of participants who are exposed to emotional violence was significantly higher among those who's partners are Saudis (46.9%), have other wives (70%) and current

smokers (59.7%) p<0.05 while other characteristics of the partners showed no statistically significant differences p>0.05.

4.3.FACTORS ASSOCIATED WITH DOMESTIC VIOLENCE OF FHW

4.3.1. Prevalence of domestic violence by female health worker's age

The age of the study group was ranging from 20-56 year with mean age of 31.25±7.38.There are no statistically significant difference among the respondents according to age. This result was expected, because our study was conducted in hospitals where most of the study population were homogenous. In comparison to literature, the mean age of abuse women was same as the age of abuse women in our study where in literature [11,12] the mean age of victims was 31.1years.

4.3.2. Prevalence of domestic violence by female health worker's nationality

Table 5 showed that the prevalence of moderate physical violence among Saudi female health workers was 40.9% while it was 21.35% among non-Saudis. This difference was statistically significant (p<0.05). Table 8 showed the percentage of respondents who reported that they had been exposed to sever form of violence was significantly higher among Saudis. The table 14 showed the prevalence of emotional violence among

Saudis FHW was 46.8 % while it was 21.35% among non Saudis. This difference was statistically significant ($p<0.05$).

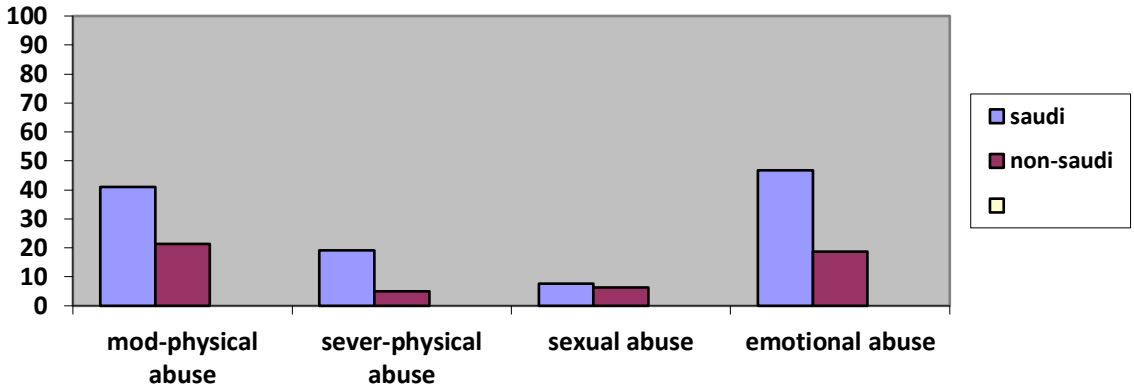


Fig [2].Prevalence of expecting domestic violence in Saudi FHW.

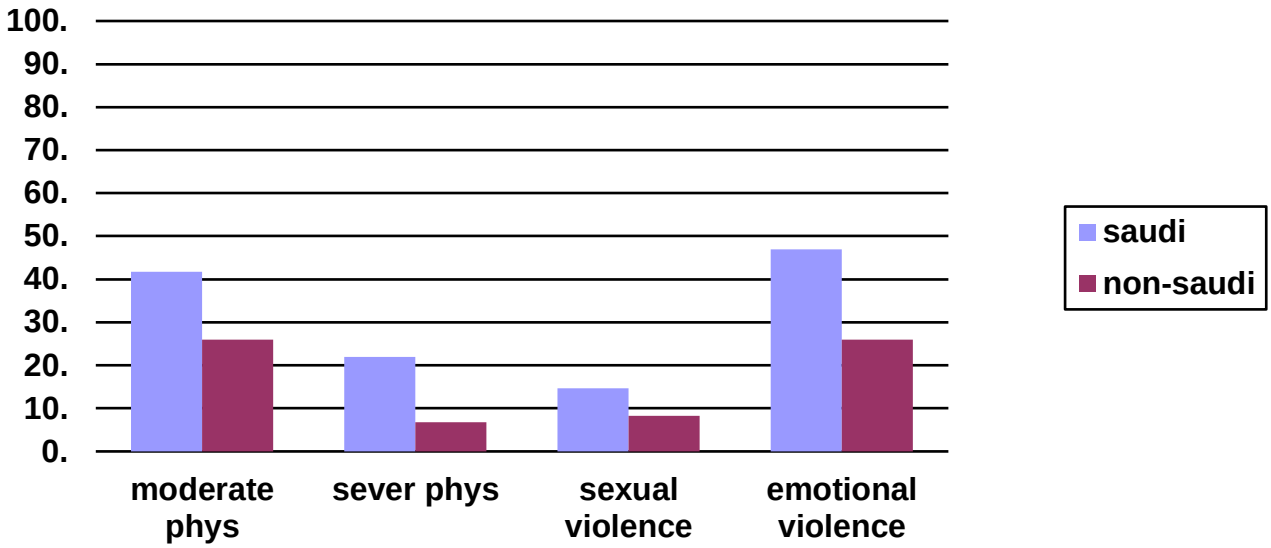
In literature (19) there was no significant difference between women who expensive abuse and ethnicity. In our study the proportion of Saudi FHW abused by their partner was higher. This could also be explained by the non- Saudi FHW not living with their partner.

4.3.3. Prevalence of domestic violence by partner′s age:

The age of the husband in this study was ranging from 25-57 year with a mean age of 37.7 ±6.6 year ,From the tables 7,10,13 and 16 showed that no significant difference was observed wide lower age. This result was unexpected. The eventually as evidence husband at this age usually mature enough to avoid conflict with their wives and to be expert in dealing with their wives .In the literature (19) the mean age of partner was relatively similar 39.5±7.5 years.

4.3.4. Prevalence of domestic violence by partner′s nationality

The difference between Saudi partners and non-Saudi partners regarding FHW abuse was statistically significant. Table 7, 10 and 16 illustrate that the frequency of exposure to moderate physical violence, sever physical violence and emotional violence was significantly ($p<0.05$) higher among participants whom current or previous partners are Saudis 41.7%,21.9% and 46.8%.



Fig[3] prevalence of domestic violence by partner's nationality.

This result was expected and could be due to differences cultural background. In addition non -Saudi partners ,frequently need their Saudi wives in dealing with legal affairs like visa (Iqama), so this may create a protective power balance. In the literature (19) the difference between Saudi husband and non-Saudi husbands regarding wives abuse was statistically non-significant.

4.4.EPIDEMOLOGY OF DOMATIC VIOLENCE

4.4.1. Marital status

Table 8 shows the distribution of severe physical violence among single, married and divorced FHW the prevalence of severe physical violence among divorced was higher 43.8% in comparison to married 12.7% and single 15.2% .

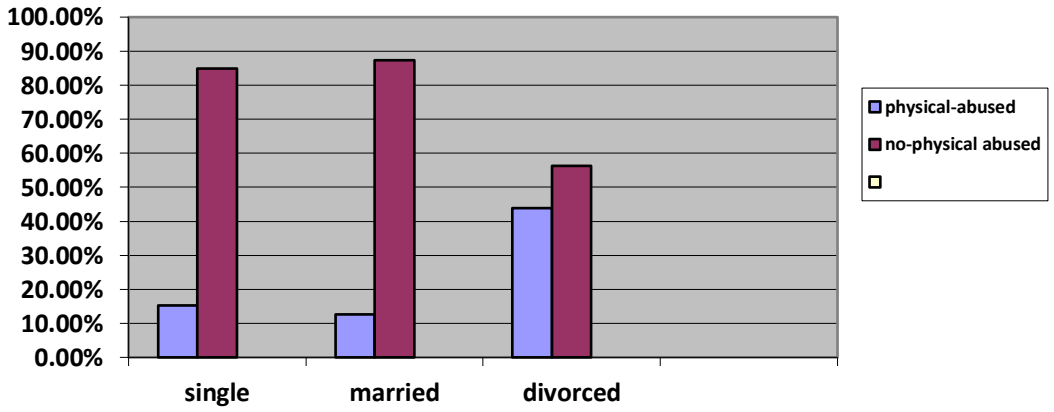


Fig [4] Relationship between physical abuse and marital status

Table 11and fig 5 shows the table shows that the percentage those who reported that they had been exposed to sexual violence was significantly higher among the divorced participants 31.3% ($p<0.05$).

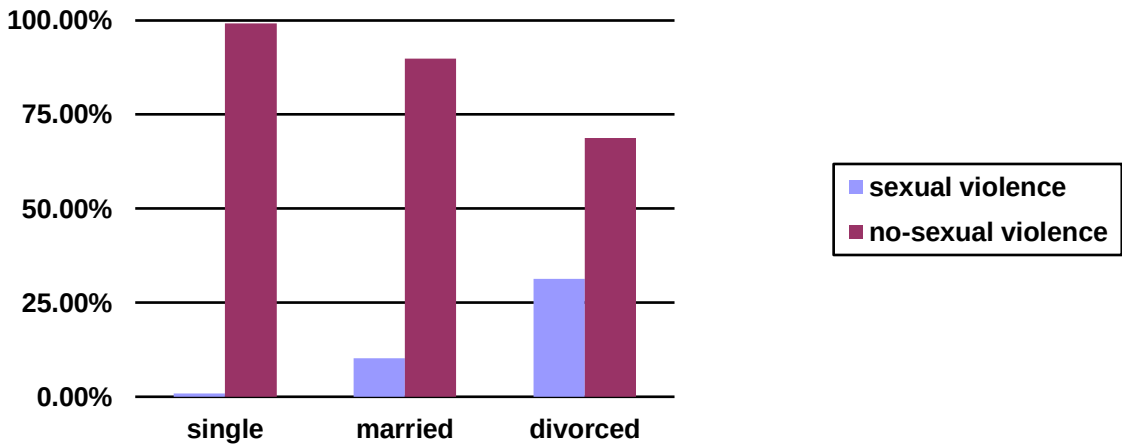


Fig [5] Relationship between sexual violence and marital status

Although table 14 and fig 6 showed that the percentages of participant who report exposure to emotional violence were significantly higher among divorced 68.8% ($p<0.05$) in comparison to married 34.4% and single 42.4% .

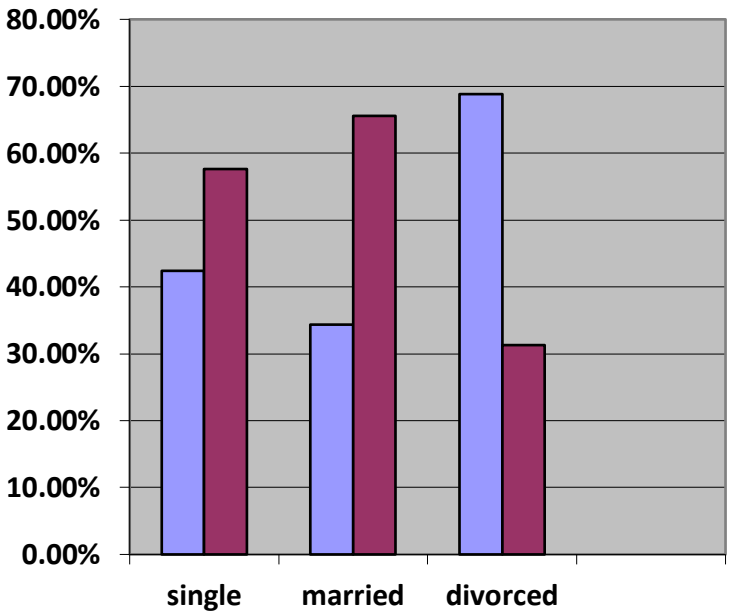


Fig [6] Relationship between emotional violence and marital status

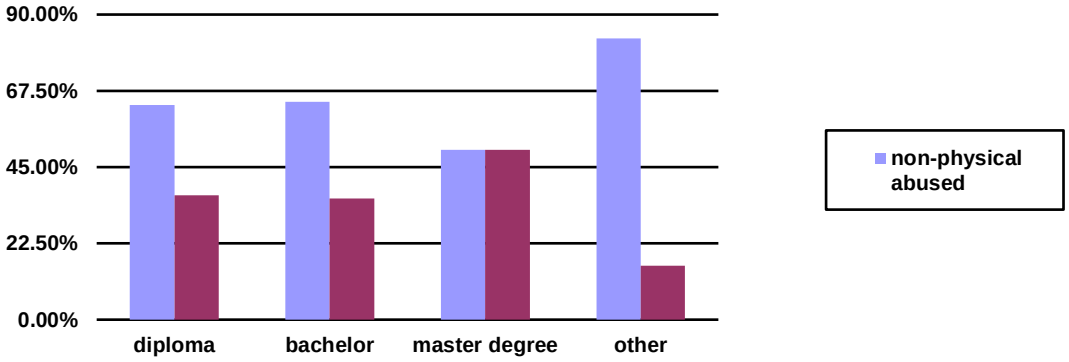
The difference was highly significant $p<0.05$ and the high prevalence among divorced women were expected and could be explained bythe divorced population, do not tolerate abuse in their marriage. Another reason might have been dishonesty about the reason behind the divorce. The wife might have gotten a divorce due to different reasons other than abuse but lied about it to have more sympathy from society and not be

judged. The wives in the statistics might have had an equally abusive reaction towards their husbands but the husbands did not accept the humiliation and gave them a divorce. Furthermore, some women have different definitions and perception for abuse. For example, a small push from a husband might have been perceived to the wife as an unacceptable degradation and had insisted on a divorce.

As for the married women, statistics might have shown that they are less abused than the divorced ones for different reasons. One reason could have been due to their fear of society. Society negatively perceives divorced women and restricts them culturally. For that reason, married women who are in fact being in an abusive relationship could be pressured to remain in their marriage. Also, some women think it is natural to be abused from their spouses because of their upbringing. Many of these women have had male figures in their lives as single women that have abused them, and made them accustomed to that life style.

4.4.2.Female health work′s education

No significant difference was observed between domestic violence FHW and non-abused FHW regarding level of FHW′s education.



Fig[7]. Relationship between physical abuse and FHW′s education.

4.4.3.Financial status

Domestic violence was significant higher among FHW who have higher monthly income ,who supporting their families financially, sharing their partners in the children expenditure.

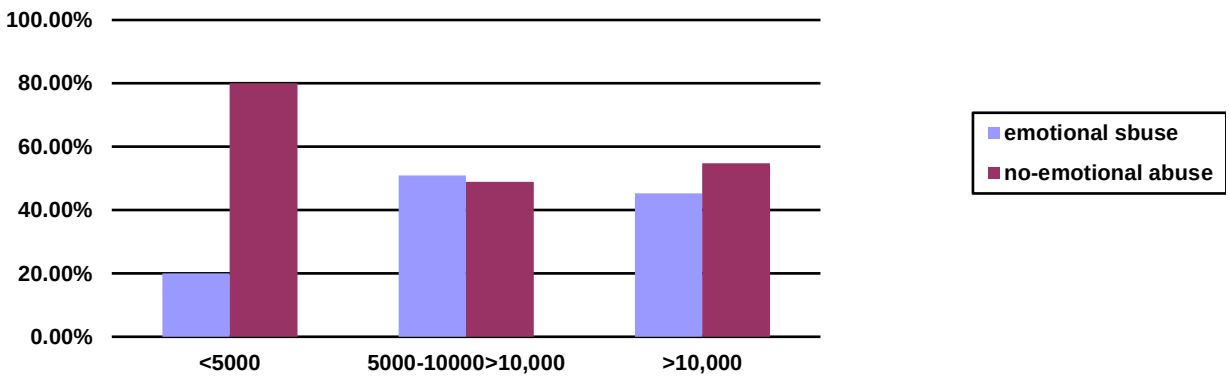
4.4.3.1.FHW income

Table (6) showed that the most frequently exposed to moderate physical abuse are those who have higher monthly income, and these observations are statistically significant $p<0.05$.

Table 9 Regarding self-reported exposure of our participants to severe physical violence according to their financial status, it was found that having higher monthly income is the only characteristic which increase significantly the likelihood of exposure to severe violence $p<0.05$.

But in the table 12 there are no significant differences in the frequency of reported exposure to sexual violence among the participants according to their financial status $p>0.05$.

Finally, table 15 and fig 8 showed that exposure to emotional violence was significantly more frequent among participants with higher monthly income ($p<0.05$) (45.22).



Fig(8) Relation between emotional abuse and FHW income

The association between violent abuse with higher income may result from jealous feeling to the wife with high income . In addition feeling of husband that his wife is working woman ,stayed outside his home for long time ,make more stress on him leading to more abuse .

This result unexpected because by the end of the month her income was high covering the needs of life but on the other hand there is some wives refuses to spend the home or her husband, and demands the man to shoulder the responsibilities in full, as if she were on maintenance. The result is financial pressure leading to the violent reaction of the husband. In literature (13) some socio-economic characteristics of women have significant association with the occurrence of domestic violence. In (14)

increased domestic violence in low socio-economic level .But in (19) physically abused women less frequently had higher income.

4.4.3.2. FHW and supporting their families financially:

The table 6 and fig 9 showed that exposure to physical violence was significantly more frequent with FHW who are supporting their families financially 40.5% ($p<0.05$).

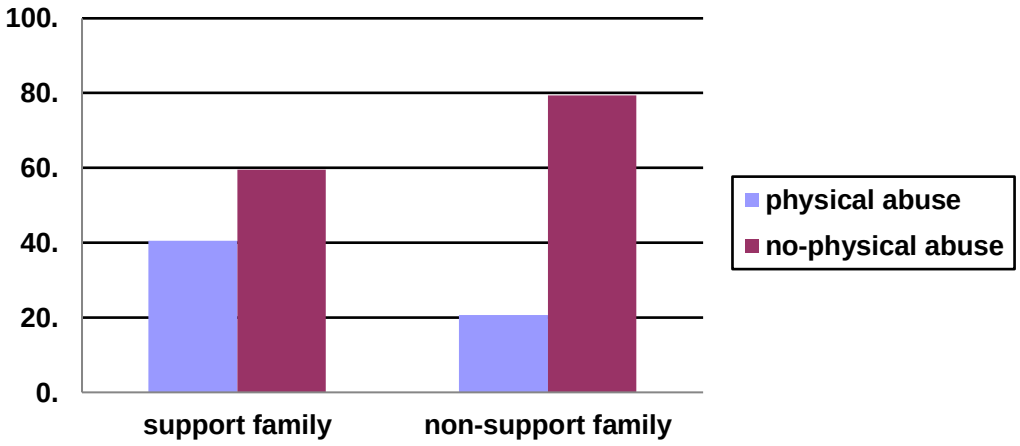


Fig (9) Relationship between physical FHW abuse and supporting their family.

The table 15 and fig 10 showed that exposure to emotional violence was significantly more frequent with FHW who are supporting their families financially 43.6% ($p<0.05$).

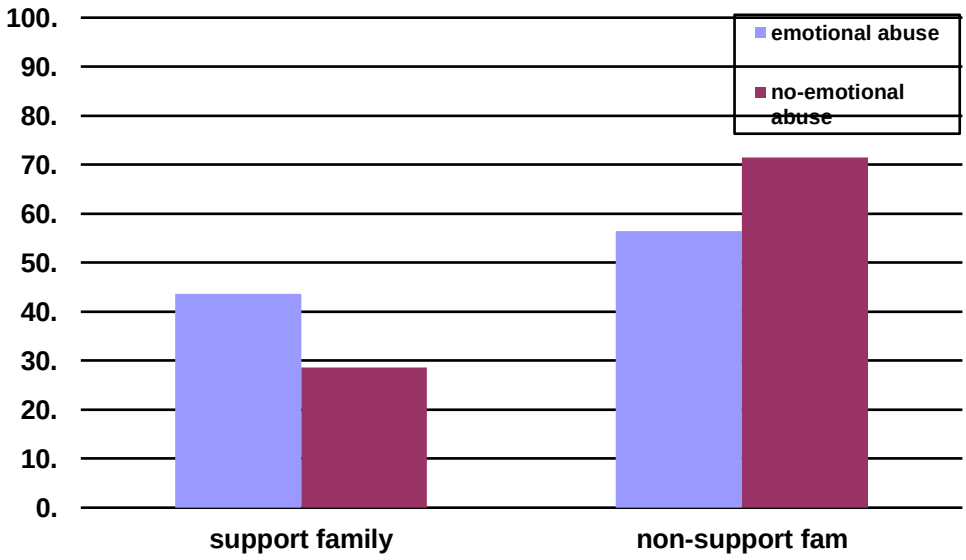


Fig (10) Relation between emotional abuse and FHW who are supporting their financially

This finding was expected and could be explained by the jealousy of the husband from the wife′s family and his belief that he deserves the money more than them, And that she spends most of her time for work which is from family time. Although from the point of some men that marriage is an independent company between couples need to support all aspects of the psychological and financial, particularly in difficult

economic conditions When to assist spending on her family lead to deficiencies in the company's needs(their won's home, children school…)

4.4.3.3.FHW and sharing partner in house and children expenditure:

Table 6 showed the prevalence of physical violence among FHW who sharing their partners in children expenditure (37.6%) this observations are statistically significant $p<0.05$. but , there is no statistically significant differences between those who are sharing their partners in the house expenditure and those who are not $p>0.05$.

This result was unexpected because usually the husband feel she had her income was high enough to covering the need of their children and he thought that included her responsibility to her children because she was not spend enough time with her kids (e.g. maid, clothing ,toys and other entertainment).Habit of known that the stewardship in the hands of men and is to spend on his family and when the wife participates in spending on children leads to the possibility of impact strength of men, which makes it reflects the sense of violence against his wife.

By two main reasons, the first, is that he feels that he is not doing his job as a man in providing for his family and this could cause frustration and a need to prove that he is strong and masculine which might result in abuse.

The second reason could be that the man in the marriage feels that the female is not doing her role and is spending more time at work than with the family which in his perception is her main role. On the other hand, other men do not link earning money with their masculinity; they have no issues in their female partners to help providing for the family because they believe that marriage is a partnership.

4.4.3.4. Partner income:

The domestic violence was found significantly higher among FHW whom their partners have a higher monthly income48.9% [table 6 & fig 11].However , the difference was statistically significant $p<0.05$.

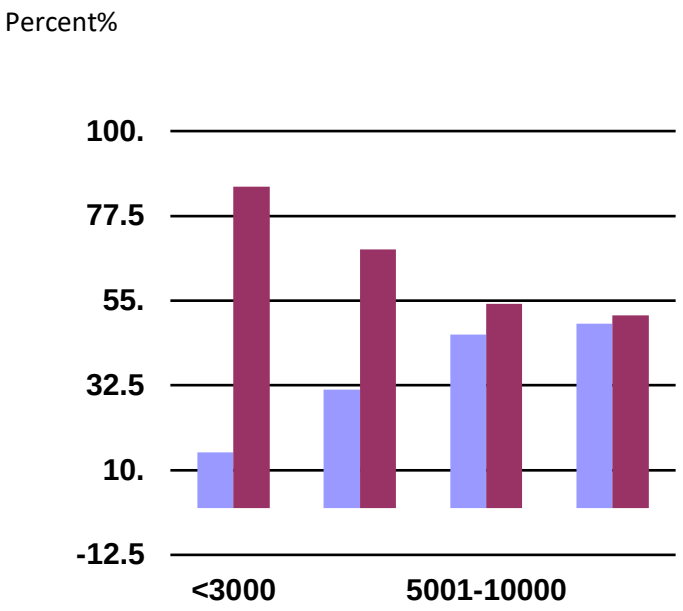


Fig (11) Relationship between physical abuse and partner's income.

There is a trend of increasing physical abuse as the partner income increase. Although this result was unexpected and could be explained by feeling of superiority by the husband because his income is higher than wife and he should be the controller leading to more physical abuse to satisfy himself that he is the stronger. The economic situation is difficult for some families, which would result in the inability of the family or lack

of potential in providing the needs of its members, and conflict often arises between husband and wife for the needs of the house. So that the high income it spends most of his time in the hard work and in other works extra time to increase the income which makes it an exhibition of pressure at work and physical, psychological and find his wife at her work at night shift preoccupied to care for him after the hard work day, that lead to increase his violence against her.

In literature review (19) there was decreasing physical abuse as the husbands income increased.

4.4.4. Polygamy

Moderate physical abuse was significantly $p<0.05$ more common among wives of husbands with more than wife (70%) compared to (29.8%) of husbands with one wife [table 7]

Table 16 showed emotional violence was significantly higher among those whose partner had other wives (70%) $p <0.05$.

The difference was statically significant. This finding was expected and could be explained by the presence of more than one wife leading to conflict in some families .

4.4.5. Relationship between domestic violence and smoking partner

The domestic violence was found more among FHW whom their partners current smoke .

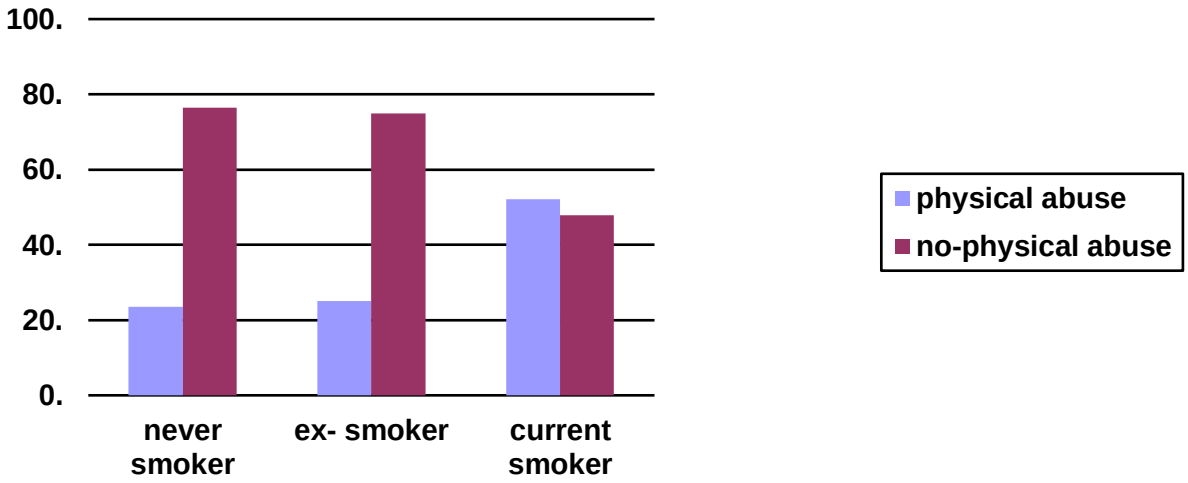


Fig (12) Relation between moderate physical abuse and partner smoking.

Table 6 & fig 12 showed the relation between physical abuse and partner who smoking the prevalence of moderate physical abuse was significantly ($p < 0.05$) higher among FHW with current smoking partner (52.2 %).

The table 10 demonstrates the prevalence of severe physical violence among FHW whom their partner current smoker was significantly higher $p < 0.05$.

Table 13 shows that the percentage of reported sexual violence was significantly higher among participants whom their partners are current smokers (20.9%) p<0.05.

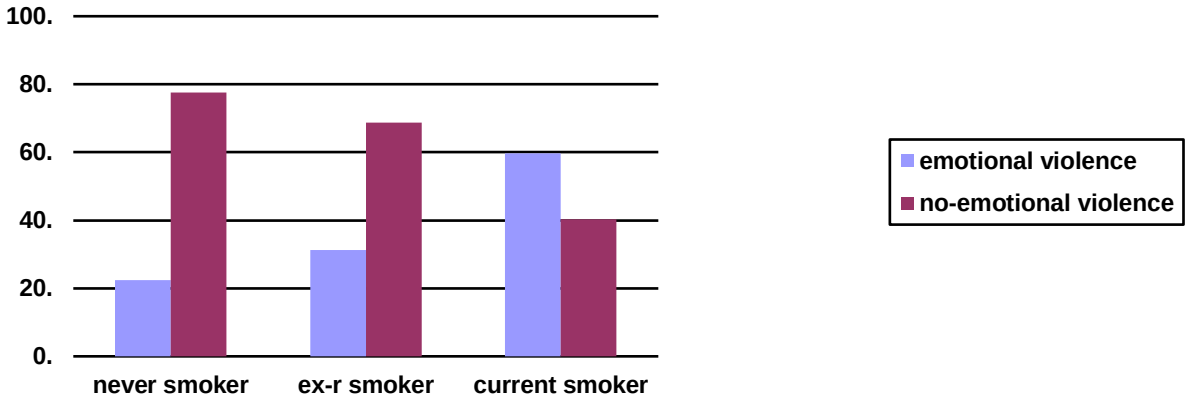


Fig (13) Relation between emotional violence to partner smoker.

Table 16 & fig13 show the proportion of participants who are exposed to emotional violence was significantly higher where their partners are current smoker 59.7 %(p<0.05).

4.4.6. Relationship between domestic violence and use of drugs

There were 8 partner who had history of drug abuse 3 of them were ex-abuser and 5 (2.9 %) current drug abusers .Table 7 showed only one physical abused FHW who her partner was drug abusing (20%). Although, in table 13 and 16 there was 2 sexual and emotional abused FHW who partner was drug abusing (40%).

The explanation of this result that because this is an Islamic society ,and the religion prohibits drinking alcohol and using drug .So the partner may abuse drugs without their wife's knowledge .

The commonly assumed link between drug abuse and domestic violence was supported by the findings of many studies, which showed association between wife abusing and drug abusing by partner in literature (12,19) there was strong association between drinking alcohol or drug abuser and domestic violence.

CHAPTER 5
CONCLUSION
RECOMMENDATIONS AND LIMITATION

5.1 CONCLUSION

5.1.1. Prevelence of domestic violence

5.1.1.1 The overall prevalence of domestic violence FHW was (45.3%) and this represents a sizable public health problem.

5.1.1.2. The most frequent abuse was emotional (39.3%) followed by moderate physical violence (35.7%), and the least was sexual abuse (7.3%).

5.1.1.3.The mean age of FHW abuse was age 31.25 ±7.38.

5.1.1.4.The mean age of partner abusing their FHW was 37.7 ±6.6.

5.1.1.5. Significant difference was found between Saudi and non-Saudi FHW regarding the prevalence of domestic violence .

5.1.1.6. The proportion of Saudi partners who abused their wives was higher than non- Saudi.

5.1.2. Epidemiology of domestic violence :

5.1.2.1. The divorced FHW had significantly a higher prevalence of historical domestic violence in comparison to single and married.

5.1.2.2. NO statically significant difference among the respondent according to the type of occupation of FHW.

5.1.2.3. NO statically significant difference among the respondent according to the education level of FHW.

5.1.2.4. The prevalence of Domestic violence was more common among FHW who have higher monthly income. The prevalence of physical and emotional violence was more common among FHW who have higher monthly income.

5.1.2.5. Domestic violence was more common among FHW who were supporting their families financially.

5.1.2.6. Domestic violence was more common among FHW who wre sharing their partner in the children expenditure.

5.1.2.7 .No statistically significant difference between those who are sharing their partners in the house expenditure and those who aren′t regarding the prevalence of Domestic violence .

5.1.2.8. No statistically significant differences in frequency of reported exposure to sexual violence among FHW according to their financial status.

5.1.2.9. No significant difference impact on Domestic violence according to monthly income of the partner.

5.1.2.10. Domestic violence was more common among participant whom partners current smokers.

5.1.2.11. The prevalence of Domestic violence was not statistically significant different according to the partner who drug misuse.

5.1.2.12. Domestic violence was more common among FHW whose partners have other wives.

5.1.2.13.The prevalence of Domestic violence was no statistically significant differences according educational level of partners.

5.1.2.14. No significant difference impact on Domestic violence according occupation of the partners.

5.1.2.15. Slapped or throwing an object was the most frequent method of physical abuse, using choking or burning were the least.

5.1.2.16. Forced to have sexual intercourse when she didn′t want to was the most frequent form of sexual violence and being forced to do something sexual that she found degrading or humiliating was the least.

5.1.2.17. Humiliating the FHW in front of other people was the most frequent method of emotional abuse. Threatening to hurt someone she cared about was the least.

5.2 RECOMMENDATIONS

Recommendation of this study fall into practice and better research.

5.2.1. Female health workers:

For the female who works that have been abused to recognize that abuse affect her work and first of all her life and her family. Work affected because it affect her patient also because the patient need care.

Caring of the patient needs a lot of attention and a clear mind and soul :

- When a female doctor is under the pressure of abusing she can't not make the right decision to make the right diagnosis and treatment
- When a female nurse is under the pressure of abusing she can not do the care that the patient needs and making the right instruction for the patient
- When a female technician is under the pressure of abusing she can not do her job well like doing the lab procedures which lead to the wrong results for the patient.
- When a female administration is under the pressure of the abuse she can't not do deal with the patient which might lead to misunderstanding which lead to more frustration.

  In conclusion a female health worker who have been abused need to first of all recognize that she is abused then after that need to seek help and be treated physically and more important psychosocial.

  Regarding her family especially if she have kids they need more attention and effort from her to rise a health mentally kids for the society .

  A female deserves to be physically, mentally and healthy woman so the community can benefit from her and her work.

5.2.2. Physicians

Abuse is a common and complex public health issue that requires the attention of family physicians dedicated to improve the health of this nation's families. Physicians in primary health care center and hospitals in staff clinic can implement the following recommendations:

-All physician should be trained in issues of family and intimate partner violence through undergraduate and graduate medical education as well as continuing professional development.

-Physicians have a major role in lowering the prevalence, scope and severity of intimate partner violence. It is important to understand that domestic violence is often hidden from public awareness.

Physicians need training to be alert to the signs and symptoms of potential abuse in women reporting with injury, certain obstetric and gynecological problems, psychosomatic diseases and psychiatric difficulties such as anxiety and depression.

-Women should also be assessed for violent relationships each time they present to health center, pre-natal clinic or counseling service despite the presenting service request.

-Screening and plans of action against domestic violence should be concentrated toward both Saudi and non-Saudi women and to do screening we should have standard scale to measure domestic violence according to our culture and religion.

- Barriers to communication need to be reduced. Private rooms are needed in PHCCs and staff clinic in hospital for discussion sessions should there be any indication of abuse suffered by a woman. Moreover, physicians need to reassure their clients about the confidentiality of information and discuss safety issues with them.

-The physicians must have a role in training and sensitization of primary health care workers and staff clinic in hospital (nurses health educators and social workers) on the issue of domestic violence .

This may enable them to detect early signs of domestic violence among the female health workers they serve.

5.2.3. MINSTRY OF HEALTH

There are important points to be addressed and stressed by them that may help to decreased domestic violence among female health workers these includes the following:

-They should give FHW morning shift in hospital.

-The mother FHW has the right to reduce her working hours and give her hours to breast-feeding and caring for her children .

-Reconsider the scheduling of maternity leave depending on the needs of working mothers and their physical and psychological health.

-Consideration the working conditions of women subjected to violence in order to ensure their protection during working hours.

-Set up a house specialized batterers in the specifications to ensure their protection and rehabilitation.

5.2.4. Health education

Abuse should be added to the list of health education topics to be addressed by physicians and health education providers at primary care center hospital school and public meetings. This can be incorporated within the regular schedule for health education and during health weeks.

Health education on regular basis through the mass media to the community. The mass media has a role in addressing abuse as a topic of public concern in television, radio program, local magazines and newspapers to promote awareness in the community that abuse is crime to encourage the whole community to accept responsibility and take positive steps to reduce and prevent abuse.

5.2.5. Community role

Community leader have a major role in prevention and solution of problem of domestic violence :

-The deployment of community awareness about the problem of domestic violence.

- Inserted into the studies and scientific research in universities and specialized institutes.

- To accelerate the research the causes of violence and ways to confront it in terms of scientific.

- As the participants call for views on the protection of family to the sessions designed to train employees on how to deal with communications And protection of victims.

-Establishment and activation of offices of the Family Guidance and strengthening the role of social workers and psychologists in all sectors of society to solve social problems and psychological facing abusers and their families,

-Issuing periodic bulletins to raise awareness of the phenomenon of domestic violence and protecting victims, shall edit a number of specialists in this area,

- Hold meetings and forums dealing with the discussion of this Phenomenon,

- The training of physicians in the field of forensic detection heads on women in incidents of sexual assault,

- To expedite the preparation of a procedural manual for dealing with cases of domestic violence in all actors on the prevention and response to domestic violence.

Other in community have mane role like imam make presentation of lectures(khutba) in mosques to :

-Explaining what Islamic family life should look like.

-Advice husband to treat their wives with goodness especially in conflict situation where the husband is innocent and the wife is rebellious and at fault.

-They should talk about women's rights in Islam and concentrate on their lecture about woman's work and her salary where the husbands have no right to take salary of their wives.

Efforts should be exerted by governmental and private agencies to improve health education. Moreover large families, abused women by partner or any member of family without cause should be addressed and discussed in mass media, health education programs and public activities. Further studies are recommended on beliefs and practices concerning marriage in Saudi Arabian society. Such research should address the issue of husband abuse and the dynamics of abusive spouse relationships in the region.

5.3. Limitations:

The prevalence of women abuse determined only among health worker in hospital and generalization of results should be made with caution. The accuracy of the responses could have been reduced by the limited time for complete questionnaire has it took approximately two hours to finish questionnaire which is very difficult in busy place by profisional with alot of responsabilityis .

More over domestic violence is considered a sensitive issue and many female health workers may not have disclosed the problem because ongoing emotional distress and a risk of criminal attack from partner if she speak about a sensitive situation.

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APPENDICS

Domestic Violence Abuse Questionnaire

This questionnaire is designed to help you decide if you are living in an abusive situation. There are different forms of abuse, and not everyone experiences all of them.

1. Please complete the following questions about yourself, your relationships. Please do your best to answer all the questions, even if you yourself have never experienced domestic violence.

2. When you have finished, put the questionnaire inside the special envelope we have provided.

3. If you prefer, feel free to take the questionnaire home and finish it there.

REMEMBER,

THE INFORMATION YOU GIVE IS CONFIDENTIAL

And no need to write your name

By this you will support a new research area

Dr Hala Al-Noaman
Family Medicine Consultant

Serial no.( ) Date(/ /)

1- Age ( )

2-Nationality: Saudi ( ) non-Saudi ( )

3-Marital status : single ( ) Married ( ) Divorced ( ) Widow ( )

4-Eduction level: Diploma ( ) Bachelor ( ) Master( ) Other( )

5-What is your occupation?

6-Duration of work (years):

7-Monthly income : <5000 ( ) 5001-10000 ( ) >10000 ( )

8-Did you give your family Budget: Yes ( ) No ( )

If you single go direct to answer section 3:

9-Did you share partner in Budget of house: Yes ( ) No ( )

10-Did you share partner in children's budget: Yes ( ) No ( )

11- Duration of marriage: (……..)

12- Did your partner have other wife? : Yes ( ) No ( )

13-Number of child : male ( ) Female ( ) NA ( )

Section 2:**The following information requested is for your partner** or previous partner

14-Age: ( )

15-Nationality : Saudi ( ) non-Saudi ( )

16-Eduction level: Primary( ) Intermediate ( ) Secondary( ) Diploma ( ) Bachelor ( ) Master ( )

17-Occupation:

18-Monthly income: <3000 ( ) 3001-5000( ) 5001-10000( ) >10000 ( )

19-Smoking: Current( ) Never ( ) Quit ( )

20-Drug abuse : Current ( ) Never ( ) Quit ( )

21-did he c/o anxiety or depression: Yes( ) NO ( )

22-did he c/o sleep disturbance: Yes( ) NO ( )

23-did he had family hex of domestic abuse: Yes( ) NO ( )

Section 3: Domestic Violence Questionnaire

A-Physical violence by an intimate partner (family member).
Experiencing only one or both of the first two items is labeled '*moderate*'; if any of the other four items were experienced, this was labelled '*Severe*' physical violence.

MODERATE VIOLENCE	YES	NO
24-Was slapped or had something thrown at her that could hurt her.		
25-Was pushed or shoved		
Severe violence	YES	NO
26-Was hit with fist or something else that could hurt		
27-Was kicked, dragged, or beaten up		
28-Was choked or burnt on purpose		
29-Perpetrator threatened to use or actually used a gun, knife,or other weapon against her.		

B-Sexual violence by an intimate partner:

Experiencing any of the three items **is labelled as '** ***sexual*** *violence'*

sexual violence	**YES**	**NO**
✓ Was physically forced to have sexual intercourse when she did not want to.		
31-Had sexual intercourse when she did not want to because she was afraid of what partner might do.		
32-Was forced to do something sexual that she found degrading or humiliating.		

C-Emotional abuse by an intimate partner:

Experiencing any of the three items is considered *'emotional violence'*
Experiencing only one item is labeled *'moderate'*; experiencing two or more is severe;

'emotional violence'	YES	NO
33-Was humiliated in front of other people		
34-Perpetrator had done things to scare or intimidate her on purpose.		
35-Perpetrator had threatened to hurt someone she cared about		

Thank you